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MEMBRANE TENSION CONTROL

Abstract

5 An electrostrictive polymer actuator comprises an electrostrictive polymer with a tailorable Poisson's ratio. The electrostrictive polymer is electroded on its upper and lower surfaces and bonded to an upper material layer. The assembly is rolled tightly and capped at its ends. In a membrane structure having a membrane, a supporting frame and a plurality of threads connecting the

10 membrane to the frame, an actuator can be integrated into one or more of the plurality of threads. The electrostrictive polymer actuator displaces along its longitudinal axis, thereby affecting movement of the membrane surface.

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